

96cm RxTx Class II Antenna System



RF Performance

Effective Aperture	96cm (38 in)
Operating Frequency Tx	13.75-14.50 GHz
	Rx 10.70-12.75 GHz
Polarization	Linear, Orthogonal
Gain (± 0.3 dB) Tx	41.2 dBi @ 14.3 GHz
	Rx 39.7 dBi @ 12.0 GHz
3dB Beamwidth Tx	1.5° @ 14.3 GHz
	Rx 1.8° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dB)	
	100 $\lambda/D < \Theta < 20^\circ$ 29 - 25 Log Θ dB
	20° $< \Theta < 26.3^\circ$ -3.5 dB
	26.3° $< \Theta < 48^\circ$ 32-25 Log Θ dB
	48° $< \Theta < 180^\circ$ -10 dB (averaged)
Antenna Cross-Polarization	30 dB within 1 dB contour
Antenna Noise Temperature*	
	10° El.53K
	20° El.39K
	30° El.32K
VSWR Tx	1.3:1
	Rx 1.5:1
Isolation (Port to Port) Tx	80dB
	Rx 35dB
Feed Interface Tx	WR75 Flat Flange
	Rx WR75 Flat Flange



Type 960 Antenna Product Specification

- One-piece precision SMC Reflector
- Fine azimuth and elevation adjustment features
- ISO 9001:2008 Certificate of Registration
- Meets or exceeds regulatory agency requirements



Mechanical Performance

Reflector Material	Glass Fiber Reinforced Polyester
Antenna Optics	One-Piece Offset Feed Prime Focus
Mount Type	Elevation over Azimuth
Elevation Adjustment Range	7° - 84° Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous, $\pm 20^\circ$ Fine
Mast Pipe Interface	73-76mm (2.88-3.00 in) Diameter O.D.
Wind Loading Operational	80 km/h (50 mph)
	Survival 200 km/h (125 mph)
Temperature	-50°C to 80°C
Humidity	0 to 100% (Condensing)
Atmosphere	Standard Hardware Meets 720 Hour Salt Spray Test Requirements (ASTM B-117)
Solar Radiation	360 BTU/h/ft ²
Shock and Vibration	As Encountered During Shipping and Handling

*Gain and Noise Temperature at Feed Horn Flange
(All Specifications Typical)

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